

SALT LAKE CITY, UT 84111

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FI	LING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/045,437 11/07/2001		11/07/2001	Mayu Yamada	3815/138 9970		
22913	22913 7590 09/21/2005		EXAMINER			
WORKMAN	NYDE	GGER	SOL, ANTHONY M			
(F/K/A WORKMAN NYDEGGER & SEELEY)			LEY)			_
60 EAST SO			ART UNIT	PAPER NUMBER		
1000 EAGLE	GATE T	OWER	2662			

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



	Application No.	Applicant(s)				
	10/045,437	YAMADA ET AL.				
Office Action Summary	Examiner	Art Unit				
	Anthony Sol	2662				
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address				
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	l. ely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 07 No	ovember 2001.					
	action is non-final.					
3) Since this application is in condition for allowar	☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4)⊠ Claim(s) <u>1-6</u> is/are pending in the application.						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-6</u> is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or	r election requirement.					
Application Papers						
9) The specification is objected to by the Examine	r.					
10)⊠ The drawing(s) filed on <u>07 November 2001</u> is/are: a)⊠ accepted or b)⊡ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a)⊠ All b)□ Some * c)□ None of:						
1.⊠ Certified copies of the priority documents	s have been received.					
2. Certified copies of the priority documents	s have been received in Applicati	on No				
3. Copies of the certified copies of the prior	rity documents have been receive	ed in this National Stage				
application from the International Bureau	ı (PCT Rule 17.2(a)).					
* See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)						
1) Notice of References Cited (PTO-892)	4) Interview Summary					
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	ate Patent Application (PTO-152)				
Paper No(s)/Mail Date	3) Other					

### **DETAILED ACTION**

## Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,108,321 B1 ("Anderson").

Regarding claims 1 and 4,

Anderson shows in Fig. 2 a dynamic channel assignment scheme utilizing interference measurements made on the uplink and downlink. Anderson discloses the Interference Based Dynamic Channel Assignment (IBDCA) which consists of signal measurement, channel ordering, call admission, channel assignment, call maintenance, call handoff and system/cell startup procedures. Anderson further discloses that the IBDCA scheme makes signal measurements in each cell 18 of Fig. 1 on the uplink and the downlink. Received signal strength measurements are used in channel ordering procedures. Based on the measurements, channels are ordered by a long-term and a short-term process. Of the possible four combinations is the long-term process being time slot based and the short-term process being time-slot based (Col. 3, lines 11-24, col. 4, lines 2-12, 22-25, 50-52; Claim 1 – giving uplink and downlink priorities to all the time slots in the frame; claim 4 - memory means for storing uplink or downlink

priorities of all the time slots in the frame).

Anderson discloses that a pair of frequencies, called a channel, is assigned to a call: one to provide the uplink and the other to provide the downlink. Anderson further discloses that a TDMA call is admitted if there exists a channel (Col. 4, lines 28-32, Col. 6, line 66; Claim 1 – receiving a time slot assignment request from at least one of the uplink channels and the downlink channels; claim 4 - receiving meads for receiving a time slot assignment request from at least one of the uplink channels and the downlink channels).

Anderson discloses that when a call arrives in a cell 18 of Fig. 1, the call is assigned a channel based on certain channel assignment criteria (Col. 4, lines 12-16; claim 1 – assigning the time slots in the frame in response to the time slot assignment request received at the receiving step, in accordance with the priorities given at the giving step; claim 4 - assignment means for assigning the time slots in the frame in response to the time slot assignment request received by said receiving means in accordance with the priorities store in said memory means).

# 3. Regarding claims 2 and 5,

Anderson discloses when the entire system is started up and there is no fixed spectrum in use, all the channels in the long term and short-term list will occupy the same positions in all cells (Col. 7, lines 51-53; claim 2 – the giving step gives the same priority to a plurality of the time slots included in the frame; claim 5 - memory means gives the same priority to a plurality of the time slots included in the frame.).

Application/Control Number: 10/045,437 Page 4

Art Unit: 2662

## 4. Regarding claims 3 and 6,

Anderson discloses that the channels are arranged in the order of increasing moving average RSS (received signal strength) value. It may be necessary to maintain separate moving averages for different times corresponding to various levels of traffic intensities. Anderson further discloses that a moving average may need to be maintained for each hour, or it may be sufficient to maintain one moving average value that is updated only during busy hours and use this value always to order channels. Anderson further discloses that the short-term process thus provides the cell with the best channels (i.e. the ordered short term list) for the channel assignment procedure. It is inherent that the short term list (priorities list) is stored in memory (Col. 5, lines 51-54, lines 57-60, Col. 6, lines 34-36; claim 3 - the giving step stores the given priorities in a memory means, and the assigning step assigns the time slots in the frame in accordance with the priorities stored in said memory means; claim 6 - assignment means decides the priorities of the time slots to be assigned in accordance with the priorities stored in said memory means).

#### Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Sol whose telephone number is (571) 272-5949. The examiner can normally be reached on M-F 7:30am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

(MS)

9/19/2005

CHAU NGUYEN SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2600

Came T. Mayer